

REMARKS

Reconsideration of this application, as presently amended, is respectfully requested. Claims 1-13 are pending in the present application, new claims 9-13 having been added by the present Amendment. Claims 1-8 stand rejected. The rejections set forth in the Office Action are respectfully traversed below.

Claims Rejections – 35 U.S.C. § 102

Claims 1-3 were rejected under 35 U.S.C. §102(b) as being anticipated by **Baxter** (USP 5,029,015). For the reasons set forth in detail below, this rejection is respectfully traversed.

Baxter discloses a video tape player/recorder that can identify a vacant UHF television channel for use as a playback channel by testing signals levels present in the UHF television channels to which the device can be tuned.

In order to select one of the UHF channels as a playback channel, the video tape player/recorder includes an analog-to-digital converter (ATD) that receives a feedback voltage (FV) from the intermediate frequency stages (IF), converts the feedback voltage (FV) to a digital signal and inputs the digital signal to the microcontroller (MIC). The magnitude of the feedback voltage (FV) is an accurate measure of the level of the received signal in the UHF television channel to which the tuner (TUN) is currently set (see col. 4, lines 53-62). The video tape player/recorder also includes a digital-to-analog converter (DTA) that receives a signal from the microcontroller (MIC) and outputs a signal to set the voltage-controlled oscillator (VCO) to

produce a carrier signal having a frequency defining as the playback channel any one of the UHF channels to which the device can be tuned (col. 4, lines 63-68).

The microcontroller (MIC) includes a signal level test and select algorithm that applies successive digital channel tuning command signals to the channel frequency selector CFS, which applies successive tuning voltages to the tuner (TUN) to tune the tuner to the carrier frequency for each for each UHF television channel in turn (col. 5, lines 9-15). As each UHF television channel is tuned into, the feedback voltage (FV) is converted to a digital value by the analog-to-digital-converter (ATD) and fed to the microcontroller (MIC), which uses the digital values to select a playback channel based on the signal level of the tested channel. The voltage controlled oscillator (VCO) is tuned to the carrier frequency of the selected channel such that the modulator (MOD) modulates a signal with the frequency of the selected channel (col. 5, lines 15-27 and flowchart Fig. 3).

The rejection of claims 1-3 is under §102, which requires that each and every element as set forth in the claims must be described, either expressly or inherently, in the prior art reference.

It is submitted that **Baxter** does not disclose or suggest the claimed presetter for presetting a used channel included in the plurality of channels to said tuner after completing a frequency setting operation by said first setter, as recited in claim 1.

Contrary to the Examiner's assertion *that Fig. 4a of Baxter illustrates the claimed "presetter"*, as explained in col. 7, lines 5-21 and also in col. 2, lines 38-45 of **Baxter**, Fig. 4a does not illustrate a presetter, and instead illustrates the case wherein the modulator output signal from a video tape recorder/player device is a double sideband signal which has its upper sideband

occupying the playback channel and its lower (unwanted) sideband occupying the immediately adjacent lower channel (see col. 2, lines 38-44). The **Baxter** device prevents interference when the modulator output signal is a double sideband signal.

More specifically, in accordance with the **Baxter** device, a playback channel will be rejected when the immediately adjacent lower channel contains a broadcast television transmission (see col. 2, lines 30-33). By rejecting this playback channel, the *interference* of a broadcast transmission by the modulated carrier signal, which is transported in the playback channel of the device, is prevented (see col. 2, lines 33-37). As described in col. 2, lines 38-44 of **Baxter**, “such interference will occur for example when as is common practice in the interests of economy, the modulator output signal from a video tape recorder/player device is a double sideband signal which has its upper sideband occupying the playback channel and its lower (unwanted) sideband occupying the immediately adjacent lower channel.”

Therefore, because **Baxter** does not disclose the claimed presetter, **Baxter** does not disclose each and every element recited in the claims and the rejection under § 102 is improper.

Further, **Baxter** does not disclose or suggest the instructor for instructing suspension of a presetting operation, which is to be enabled after completing the frequency setting operation by said first setter, and a disabler for disabling said presetter in response to an instruction of said instructor, as recited in claim 2. The Office Action asserts that col. 5, lines 19-38 of **Baxter** teach the features recited in claim 2. However, col. 5, lines 19-38 simply elaborate on how the microcontroller (MIC) tests UHF channels are selects a playback channel. Column 5, lines 19-38 are unrelated to suspension and disabling of a presetting operation.

For the reasons set forth above, it is respectfully submitted that each of claims 1-3 patentably distinguish over the **Baxter** reference. Reconsideration and withdrawal of the rejection under § 102 are respectfully requested.

Claims Rejections – 35 U.S.C. § 103

Claims 4-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over **Baxter** in view of **Beyers et al.** (USP 5,943,467, previously cited). For the reasons set forth in detail below, this rejection is respectfully traversed.

The remarks regarding the **Beyers et al.** reference set forth in the response filed August 16, 2004 are hereby incorporated by reference. First, **Beyers et al.** does not alleviate any of the deficiencies of **Baxter** discussed above. Therefore, each of claims 4-8, which depend from independent claim 1, patentably distinguish over the combination of **Baxter** and **Beyers et al.** for the same reasons set forth above with respect to claim 1.

Second, **Beyers et al.** do not disclose or suggest the features found in the dependent claims. For example, **Beyers et al.** do not teach displaying channel numbers of predetermined channels at a predetermined time interval, as recited in claim 4. **Beyers et al.** is silent with respect to displaying channels *at a predetermined time interval*. Further, for example, **Beyers et al.** do not disclose or suggest selectively setting frequencies of predetermined channels to a modulator at a predetermined time interval (claim 6) and controlling a generator to generate a character signal related to a frequency selectively set to the modulator at the predetermined time

interval (claim 7). **Beyers et al.** simply disclose on-screen menus to select various VCR functions.

Finally, there is no incentive or motivation to combine **Beyers et al.** with **Baxter**, as required under §103, and therefore the combination of references is improper. Specifically, **Beyers et al.** teaches a system that is unrelated to searching for an unused channel and setting a frequency of the unused channel to a modulator. **Beyers et al.** searches for *used* channels, while **Baxter** searches for *unused* channels to set a playback channel. Thus, the references are directed to different aspects of channel selection.

For the reasons set forth in detail above, reconsideration and withdrawal of the rejection under § 103 are respectfully requested.

New Claims

New claims 9-13 have been added by the present Amendment.

According to new claim 9, a tuner inputs a plurality of channels of radio frequency television signals and outputs a base-band television signal of a designated channel. The base-band television signal outputted from the tuner is modulated by a modulator, and the radio frequency television signal modulated by the modulator is outputted to a video displaying apparatus with tuner by an outputter.

A determiner determines used channel/unused channel for predetermined channels each of which should be the unused channel out of the plurality of channels. A frequency of a channel

which is determined to be the unused channel by the determiner is set to the modulator by a first setter.

When any of the predetermined channels is determined not to be the unused channel by the determiner, a second setter selectively sets frequencies of the predetermined channels to the modulator at a predetermined time interval, and a generator generates a character signal related to a frequency which is set by the second setter. The generated character signal is combined with the base-band television signal outputted from the tuner by a combiner.

An acceptor accepts a selecting operation which selects any one of the predetermined channels in association with a setting process of the second setter. A frequency of a channel selected by the selecting operation is set to the modulator by a third setter.

Thus, if none of the predetermined channels is the unused channel, the frequencies of the predetermined channels are selectively set to the modulator at a predetermined interval, and a character signal related to the set frequency is combined with the base-band television signal.

Therefore, when a receiving channel of the video recording/reproducing apparatus with tuner is set to each of the predetermined channels, a character related to the set channel is intermittently displayed on a screen. A user is able to carry out a channel setting operation in reference to the displayed character, and therefore, operability is improved.

In contrast, **Baxter** discloses selecting a free channel containing substantially no signals as a playback channel only when the immediately adjacent lower channel does not contain a wanted broadcast television transmission. However, **Baxter** fails to disclose or remotely suggest the invention, as presently recited in claim 9, in which when a receiving channel of the video

recording/reproduction apparatus with tuner is set to each of the predetermined channels, a character related to the set channel is intermittently displayed on a screen. Accordingly, the invention recited in claim 9 patentably distinguishes over **Baxter**.

Beyers et al. disclose a tuner which inputs a plurality of channels of radio frequency television signals and outputs a base-band television signal of a designated channel, and a modulator which modulates the base-band television signal outputted from the tuner to the radio frequency television signal. However, **Beyers et al.** also fail to disclose or remotely suggest anything the invention, as presently recited in claim 9, in which when a receiving channel of the video recording/reproducing apparatus with tuner is set to each of the predetermined channels, a character related to the set channel is intermittently displayed on a screen. Accordingly, the invention recited in claim 9 patentably distinguishes over the **Beyers et al** reference.

Therefore, since both the references fail to disclose or remotely suggest the invention recited in claim 9, each of claim 9 and claims 10-13, which depend from claim 9, patentably distinguish over the combination of the references, and define allowable subject matter.

CONCLUSION

In view of the foregoing amendments and accompanying remarks, it is submitted that all pending claims are in condition for allowance. A prompt and favorable reconsideration of the rejection and an indication of allowability of all pending claims are earnestly solicited.

Application No. 09/649,594
Group Art Unit: 2616

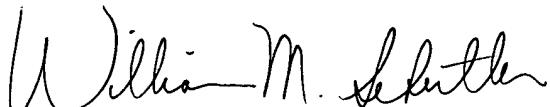
Amendment under 37 C.F.R. § 1.111
Attorney Docket No.: 001090

If the Examiner believes that there are issues remaining to be resolved in this application, the Examiner is invited to contact the undersigned attorney at the telephone number indicated below to arrange for an interview to expedite and complete prosecution of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP



William M. Schertler
Attorney for Applicants
Registration No. 35,348
Telephone: (202) 822-1100
Facsimile: (202) 822-1111

WMS/dlt